

AMENDMENTS TO THE ABSTRACT

Kindly replace the original Abstract with the following new Abstract. The new Abstract is also set forth on a separate sheet attached to this Amendment.

ABSTRACT

A vehicle emergency brake system has a second brake for braking a vehicle by increasing the frictional resistance with the road surface, a millimeter wave radar for detecting any obstacle in an advancing direction, a pedal speed sensor for detecting the step-in speed of a brake pedal for actuating a first brake, and a controller for actuating the second brake. If hard braking by the first brake is detected by the pedal speed sensor, the controller determines whether the vehicle is going to crash into an obstacle detected by the radar. If a determination is made that it will collide, the second brake is actuated. Thus, it is possible to reliably actuate the second brake in an emergency.